

Glass-Mate™ Cartridges

Absolute-rated and economical filtration with pleated microglass

Glass-Mate™ cartridges offer an economical choice for absolute-rated efficiency, high flow rate capability and long service life. A wide variety of construction components, end fittings and seal options make this product line ideal for pre-filtration and point-of-use filtration for many industrial applications.

Glass-Mate cartridges are available in 0.2, 0.45, 1.0, 2.0, 3.0, 5.0, 10, 20 and 40µm absolute-rated pore sizes.



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Benefits

- Absolute-rated media provides reliable removal efficiency
- Thermal bonding eliminates particle bypass
- Laminated media/support layer maximizes flow capacity and media utilization and minimizes media migration
- Variety of construction/seal options for increased compatibility
- End fitting options provide competitive housing retrofit capability
- All materials of construction are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21
(except 200 & 400 micron)

- High surface area yields high flow rate, low differential pressure
- Non-fiber-releasing media with minimal extractables provides high-purity filtrate
- ISO 9001 registered company

Applications

- Chemicals
- Coatings
- Water
- R.O. Pre-filtration



ENGINEERING YOUR SUCCESS.

Glass-Mate™ Cartridges

SPECIFICATIONS

Effective Filtration Area

5 ft²/10 in. (0.46 m²/254 mm) minimum

Materials of Construction

Filter Medium:

Borosilicate microfiberglass w/ acrylic binder

Support/Drainage Layers:

Spunbonded polyester; laminated on the downstream side

Recommended Operating Conditions

Maximum Temperature

Glass Filled Polypropylene:

200°F @ 35ΔP (93°C/2.4bar)

Polyester:

140°F @ 35ΔP (60°C/2.4bar)

Stainless Steel:

275°F @ 35ΔP (135°C/2.4bar)

Change-out Differential Pressure

35psi (2.4bar)

Maximum Flow Rate

10gpm per 10 in. length (38 lpm/254 mm)

Design Flow Rate

5gpm per 10 in. length (9.5 lpm/254 mm)

Maximum Differential Pressure

Glass-Filled Polypropylene:

90psi @ 75°F (6.2bar/24°C)

Polyester:

70psi @ 75°F (4.8bar/24°C)

Stainless Steel:

75psi @ 275°F (5.1bar/135°C)

Biological Safety/Product Purity

- All components FDA listed per CFR, Title 21 (except 20 & 40 micron)
- Non-fiber releasing per FDA

Sterilization/Sanitization

Hot water ("F" construction): 180°F (82°C) for 30 minutes at maximum 15psid (1bar).

In-Line Steam/Autoclave ("F" construction with stainless steel sleeve): 60 minutes at 255°F (140°C) at 2psid (0.14bar) maximum pressure.

Flow Rate and Pressure Drop Formulas

Flow Rate (gpm):

Clean ΔP x Length Factor

Viscosity x Flow Factor

Clean ΔP:

Flow Rate x Viscosity x Flow Factor

Length Factor

Notes:

- Clean ΔP is psi differential at start.
- Viscosity is centistokes. Use Conversion Tables for other units.
- Flow Factor is ΔP/GPM at 1cks for 10 in. (or single).
- Length Factors convert flow or ΔP from 10 in. (single length) to required cartridge length.

Glass-Mate Flow Factor (psid/gpm @ 1cks)

Rating (μm)	Flow Factor
0.2	0.115
0.45	.108
1.0	.102
2.0	.095
3.0	.090
5.0	.072
10	.060
20	.042
40	.018

Flow Rate Capability Glass-Mate Length Factor

Length (in.)	Length Factor
9	1.0
10	1.0
19	2.0
20	2.0
29	3.0
30	3.0
39	4.0
40	4.0

Liquid Particle Retention Ratings (μm) @ Removal Efficiency of:

Cart.	β=5000 Absolute	β=1000 99.8%	β=100 99%	β=20 95%	β=10 90%
PMG002	0.2	0.15	<0.1	<0.1	<0.1
PMG004	0.45	0.3	<0.1	<0.1	<0.1
PMG010	1.0	0.6	0.2	<0.1	<0.1
PMG020	2.0	1.2	0.4	0.2	0.1
PMG030	3.0	1.8	0.6	0.3	0.2
PMG050	5.0	3	1.3	0.5	0.4
PMG100	10	7	3.5	1.6	1.2
PMG200	20	16	8	4	2.5
PMG400	40	32	20	11	8

Ordering Information

PMG [] - [] [] [] - [] []

Particle Removal Rating		Nominal Length			Support Construction		Seal Material		End Cap Configuration				Special Options		
CODE	MICRON	CODE	INCHES	mm	CODE	MATERIAL	CODE	MATERIAL	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	
002	0.2	9	9 9/16"	244	F	Glass-filled polypropylene core & pure polypropylene extruded outer cage	P	Polyethylene Foam (DOE gasket only)	AR	020 O-ring/ Recessed cap	TB			Blank	None
004	0.45	10	9 13/16"	249			E	EPR	DO	Double open end (DOE)	TC	222 O-ring/Flat Cap		Z6	Individual Poly bag only
010	1.0	19	19 5/8"	498			N	Buna-N	DX	Double open end/ extended core	TF	222 O-ring/Fin		Z15	Individual poly bag 15/ctn. (20', 30', 40')
020	2.0	20	19 19/16"	506			S	Silicone	LL ³	120 O-ring/ Recessed Cap	TX	222 O-ring/Flex Fin		Z30	Individual poly bag 30/ctn. (10')
030	3.0	29	29 1/4"	743	G ¹	304 Stainless Steel core with polyester outer netting	T ²	PFA Encapsulated Viton® (222, 226 O-ring only)	LR	120 O-ring/Recessed ³	XB	Ext. core open end/ Polypropylene spring closed end			
050	5.0	30	30 1/16"	764			V	Viton®	OB	Std. open end/ Polypropylene spring closed end	SSC	SS inserted 226 O-ring/Closed			
100	10	39	39"	991	P	Polyester core, end caps & outer netting	X	No seal material	PR	213 O-ring/ Recessed cap ³	SSF	SS inserted 226 O-ring/Fin			
200*	20	40	40"	1016			S	316 Stainless Steel	SC	226 O-ring/Flat Cap	STC	SS inserted 222 O-ring/Closed			
400*	40								SF	226 O-ring/Fin	STF	SS inserted 222 O-ring/Fin			

*Non-FDA (add '-N' to end of part#)

¹Stainless steel end caps incl. only on DO option

²PFA/Viton is O-ring only; for DOE

³Available only in 9 9/16" (-9) and 19 5/8" (-19) lengths

Specifications are subject to change without notification. For User Responsibility Statement, see www.parker.com/safety

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DS_IP_Glass-Mate Rev. B

